



AN/PRC-77 TACTICAL RADIO SET

The AN/PRC-77 Series Radio provides a short-range, two-way voice communications in manpack portable and vehicular configurations. The AN/PRC-77 supersedes its widely used predecessor, the AN/PRC-25. It is physically and electronically interchangeable in all manpack, vehicular and fixed radio installations that previously utilized the AN/PRC-25. It provides greater reliability, longer battery life, and the important improvements in spurious response, oscillator radiation and desensitization, plus its capability for use with "secure voice" systems, represent the very latest development in the family of manpack and vehicular FM communications. The equipment can be remotely controlled up to two miles with the AN/GRA-39 Remote Control Group and is capable of automatic retransmission (relay operation) when used with the MK-456/GRC Retransmission Cable Kit. New improvements and modifications to this basic radio set offer many improved features such as: encryption, anti jamming and 25 MHz channel spacing.



OUTSTANDING FEATURES

- Fully solid state circuitry.
- Modular construction for rapid in-field servicing.
- Synthesizer provides crystal control and assures immediate netting with other radio systems.
- Convenient front panel tuning and band switch controls permit easy channel presetting and frequency selection.
- 920 channels in two frequency bands 30.00 to 52.95 MHz (low), 53.00 to 75.95 MHz (high).
- Capability for application in "Secure Voice" systems adds greatly to its versatility.
- Compatible with AN/PRC-25, AN/GRC-125, AN/VRC-53, AN/VRC-12, AN/VRC-43 and through
- AN/VRC-49 radio sets and many other radio sets, which operate in the identical frequency range.
- The AN/PRC-77 is the basic receiver-transmitter equipment used in the vehicular sets, which operate in the identical frequency range.
- The AN/PRC-77 is the basic receiver-transmitter equipment used in the vehicular sets AN/VRC-64, AN/VRC-65 and AN/GRC-160.
- Capable of 50 watt output with AM-4700 Booster Amplifier Power Supply.
- Completely waterproof, compact, rugged, light-weight.

TECHNICAL DATA

Frequency range:	Low band - 30,000 to 52.95 MHz. High band - 53.00 to 75.95 MHz.
Number of Channels:	920.
Channel Spacing:	50 KHz.
Types of Transmission and Reception:	Transmission-Voice and 150-Hz squelch tone. Reception-Voice (no squelch); or voice and 150 Hz squelch tone.
Transmission and reception power requirements:	
Transmission-	12.5 to 15 volts dc, 780 ma average.
Reception-	12.5 to 15 volts dc, 60 ma average.
Type of modulation:	Frequency.
Transmitter output power:	1.5 to 2.0 watts.
Type of squelch:	Tone operated by 150-Hz signal.
Distance range:	5 miles (8 kilometers) (varies with conditions).
Type of antennas:	
Short antenna-Antenna AT-892/PRC-77	3 feet long, semi-rigid steel tape.
Long antenna-Antenna AT-271A/PRC	10 feet long, multi-section whip.
Power source:	Dry battery BA-386/U, BA-398/U, BA-4386/U, or nickel cadmium rechargeable battery cassette.
Battery life (BA-398/U):	30 hours (with a 9:1 receive-transmit ratio).
RT-841/PRC Receiver-transmitter:	Dimensions-4" X 11" X 14" high. Weight-13.75 lbs.

BASIC COMPONENTS OF THE AN/PRC-77 SERIES RADIOS

	AN/PRC-77	AN/VRC-64	AN/GRC-160
RT-841/PRC-77	1	1	1
AS-1729/VRC		1	1
AT-892/PRC-25	1		1
AT-271A/PRC	1		1
AB-591/PRC-25	1		1
ST-138/PRC-25	1		1
CW-503/PRC-25	1		1
H-189/GR	1		1
OA-3633(*)/GRC		1	1
MT-1029/VRC		1	1

ACCESSORY ITEMS

The **ST-138/PRC-25** Harness is a cotton duck back pack. It is sewn to secure the receiver-transmitter so that it can be carried on the operator's back.

The **CW-503/PRC-25** Bag is a sectionalized canvas carrying case used to store the two whip antennas and the handset.

The **AT-892/PRC-25** is a one-section, three foot, whip antenna. A spring at its base allows the antenna to be placed in a vertical position no matter what the position of the receiver-transmitter. It is constructed of steel tape and can be folded for storage.

The **AT-271A/PRC** is a six section, tubular, folding whip antenna. A stainless steel, plastic-covered cable (or braided plastic cord) under spring tension is threaded through the sections to keep them together when assembled for operation and prevent their separation or loss when disassembled. Spring tension is provided by a spiral spring in the base section. An antenna top cap installed on the tip of the antenna provides protection for personnel.

The **AB-591/PRC-25** is an antenna base that will act as a rigid support for the tubular six section antenna.

The **H-189/GR** Handset contains a dynamic microphone and receiver for transmitting and receiving signals. A push-to-talk switch is mounted in the handle. The connecting cord is retractile and terminates in a five-pin connector.

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